

AMENDMENT TO CLAIMS

Claims 1-87. (withdrawn)

Claim 88. (currently amended): A method of preparing a dietary supplement or pharmaceutical composition useful for reducing or preventing reactive oxygen species in a mammal, comprising mixing a chemical composition consisting essentially of one or more peptide compound capable of upregulating at least one gene of the group consisting of the genes encoding superoxide dismutase (SOD); and catalase (CAT) ~~and glutathione peroxidase (GST-Px)~~, with a suitable vehicle, wherein said peptide compound having more than one amino acid and having 7 or fewer than 7 amino acids.

Claim 89. (cancelled)

Claims 90-91. (cancelled)

Claim 92. (previously amended): The method according to Claim 88, wherein said peptide compound comprising the formula:

$R_1 \text{ Xaa}_1 \text{ Gly Xaa}_2 \text{ Xaa}_3 \text{ Xaa}_4 \text{ Xaa}_5 \text{ Xaa}_6 \text{ R}_2$ (SEQ ID NO:3),

wherein R_1 is absent or is an amino terminal capping group of the peptide compound; Xaa_1 and Xaa_2 are, independently, aspartic acid or asparagine; Xaa_3 is absent or Gly; Xaa_4 is absent, Asp, or Phe; Xaa_5 is absent, Ala, or Phe; Xaa_6 is absent or Ala; R_2 is absent or is a carboxy terminal capping group of the peptide compound.

Claim 93. (previously amended): The method according to Claim 88, wherein said peptide compound comprising the formula:

$R_1 \text{ Xaa}_1 \text{ Xaa}_2 \text{ Xaa}_3 \text{ R}_2$,

wherein Xaa_1 is Asp, Asn, Glu, Gln, Thr, or Tyr; Xaa_2 is absent or any amino acid; Xaa_3 is Asp, Asn, Glu, Thr, Ser, Gly, or Leu; R_1 is absent or is an amino terminal capping group; R_2 is absent or is a carboxy terminal capping group; and wherein the peptide compound upregulates expression of a gene encoding an antioxidative enzyme.

Claim 94. (cancelled)

Claim 95. (previously amended): The method according to Claim 88, wherein the peptide compound further comprises an amino terminal capping group and/or a carboxy terminal capping group.

Claim 96. (previously amended): The method according to Claim 95, wherein the amino terminal capping group is selected from the group consisting of:

1 to 6 lysine residues; 1 to 6 arginine residues; a glucose-3-O-glycolic acid group; an acyl group containing a hydrocarbon chain from 1 to 25 carbon atoms in length; an acetyl group; a palmitoyl group; a lipoic acid group; a docosaheptaenoic acid group; and combinations thereof.

Claim 97. (previously amended): The method according to Claim 95, wherein said carboxy terminal capping group is an amino group linked to the carboxy terminal carbonyl in an amide linkage.

Claim 98. (previously amended): The method according to Claim 97, wherein said amino group is a primary or secondary amine.

Claim 99. (previously amended): The method according to Claim 88, wherein the said gene is selected from the group consisting of a gene encoding superoxide dismutase, and a gene encoding catalase.

Claims 100 -103. (cancelled)

Claim 104. (previously added): The method as described in claim 88, wherein the said peptide compound comprising fewer than 6 amino acids.

Claim 105. (previously added): The method as described in claim 88, wherein the said peptide compound comprising fewer than 5 amino acids.

Claim 106. (previously added): The method as described in claim 88, wherein the suitable vehicle is selected from a group consisting of a pharmaceutically acceptable excipient, salt, adjuvant and carrier, and a composition purified from a natural source.

Claim 107. (previously added): The method as described in claim 106, wherein said natural source is selected from a group consisting of green velvet antler, deer and elk.

Claim 108. (previously added): The method as described in claim 106, wherein said natural source is selected from a group consisting of plants and microorganisms.

Claim 109. (currently amended): The method as described in claim 88, wherein the said peptide compound is capable of upregulating the genes encoding superoxide dismutase (SOD); and catalase (CAT) ~~and glutathione peroxidase (GST-Px)~~.

Claims 110 - 117. (withdrawn)